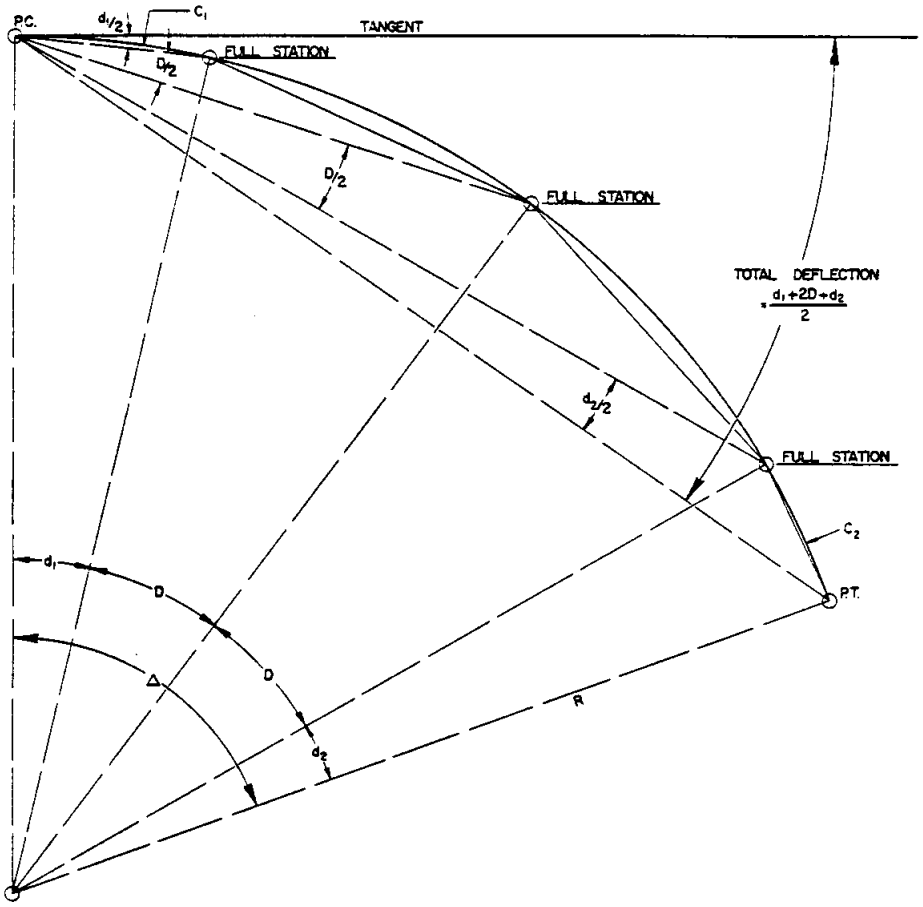
1304 CURVE COMPUTATION BY DEFLECTION ANGLE



D = CENTRAL ANGLE FOR A FULL STATION OF ARC LENGTH
C_1 = LENGTH OF ARC FROM P.C. TO THE FIRST FULL STATION
C_2 = LENGTH OF ARC FROM THE LAST FULL STATION TO P.T.

1. FROM THE GENERAL FORMULAS IN FIGURE 12-100.1, COMPUTE 'D' AND STATIONS P.C. AND P.T.

2. SOLVING FOR THE DEFLECTION ANGLES, IN MINUTES, HAVING LENGTHS OF THE ARC LESS THAN A FULL STATION,
$d_1 /2 = 0.30\ C_1\ D$
$d_2 / 2 = 0.30\ C_2\ D$

3. THE DEFLECTION ANGLE IN DEGREES, FOR A FULL STATION ARC LENGTH EQUALS D / 2.

4. THE DEFLECTION ANGLE, IN MINUTES, FOR ANY ARC LENGTH,
DEFLECTION = (1718.873 / R) X ARC LENGTH

5. A RUNNING TOTAL OF STATION TO STATION DEFLECTIONS GIVES THE TOTAL DEFECTION ANGLE FROM THE P.C.

COMPUTE CHECK: THE TOTAL DEFLECTION ANGLE TO THE P.T. MUST EQUAL Δ / 2